

30/4/80

The use of the USR command in tiny BASIC V1.1, and suggested upgrade to V1.2.Version V1.1

After calling your machine code program from the BASIC by means of the USR command, the method used to return control to the BASIC program is as follows:

At the end of your machine code routine add the following code:

```
ED 7B 0C 10      ( load SP from its temporary storage location
                  100C)
C3 29 07          (jump to 0729)
```

Alternatively ...

Change the following locations in TB V1.1(2), to give a new EPROM: TB V1.2(2).

<u>Address</u>	<u>TB V1.1(2)</u>	<u>TB V1.2(2)</u>
06FE,FF	D1C9	1829
0779	31	32

Once this is done, the methods used for returning from a USR are:

- (i) Provide your machine code program has not disturbed the stack or the stack pointer, simply add 'C9' (Return) to the end of your machine code program.
- (ii) Otherwise, it is necessary to begin your machine code program by loading a new stack location into the pointer SP, and storing the value of BC (which happens to contain the return address 06FA) on the stack by means of the Push BC instruction. e.g:

```
31 00 3D      LDSP(NEWSTACK) in this example 3D00
C5            PUSH BC (which holds 06FA)
...           (Your code)
...
C9            Return to calling program
```

- (iii) Another way of returning to the correct point is to add a jump at the end of your machine code program. The jump may be conditional or not, but must be to 06FA. e.g.:
- ```
... (Your code)
C3 FA 06 Unconditional jump to 06FA
```

Existing purchasers of Tiny BASIC V1.1 can send back their number TB V1.1(2) EPROM to have it upgraded to V1.2 status. Our charge for erasing and reprogramming is £1 plus 35p handling and plus 15% VAT on the total.

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